

Docket No. 108482

Application No. 09/778,794

APPENDIX

Changes to Claims:

The following is a marked-up version of the amended claim(s):

1. (Twice Amended) A brake device having a fluid pressure source which generates a fluid pressure based on operation of a brake operating member, the brake device actuated by the fluid pressure generated by the fluid pressure source, comprising:

a brake operating amount detector which detects an operating amount of the brake operating member,

a fluid source pressure detector which detects the pressure generated in the fluid pressure source, and

a failure detector which detects and distinguishes between different types of failures of the brake device based on the pressure detected by the fluid source pressure detector and the operating amount detected by the brake operating amount detector, wherein the failure detector detects and distinguishes the types of the failures between: (i) a case in which the pressure detected by the fluid source pressure detector at a time when the detected operating amount is a first predetermined amount of operation which is smaller than a second predetermined amount of operation is smaller than a first predetermined pressure which is larger than a second predetermined pressure, (ii) a case in which the pressure detected by the fluid source pressure detector at the time when the detected operating amount is the first predetermined amount of operation is larger than the first predetermined pressure, and (iii) a case in which the pressure detected by the fluid source pressure detector at a time when the operating amount detected by the brake operating amount detector is the second predetermined amount of operation is larger than the second predetermined pressure.

3. (Twice Amended) The brake device as in claim 1, wherein the fluid pressure source includes a master cylinder which generates the fluid pressure corresponding to an

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input power, and a booster which increases an operation power of the brake operating member and outputs an increased operation power to the master cylinder,

the fluid source pressure detector includes a master cylinder pressure detector which detects the pressure of the master cylinder or a connected portion of the master cylinder, and

the failure detector detects a failure of the booster if the pressure in the case that the pressure of the master cylinder at the time when the amount of the brake operation the opening amount of the brake operation detected by the operating amount detector is the second predetermined amount of operation is larger than the second predetermined pressure, and detects the failure of fluid leakage of the brake device if the pressure in a case that the pressure of the master cylinder at the time when the amount of the brake operation is the second predetermined amount of operation is smaller than the second predetermined pressure.

5. (Twice Amended) The brake device as in claim 4, wherein the brake operating amount detector includes an operation power detector which detects power supplied to the brake operating member, and

the bottoming detector detects the bottoming condition based on whether an increasing gradient of the operation power detected by the brake operating amount detector is larger than a predetermined gradient or not.

6. (Twice Amended) The brake device as in claim 5, further comprising a brake fluid control device which controls a brake fluid pressure in different ways based on the type of the failure detected by the failure detector,

the fluid source pressure detector includes a master cylinder pressure detector which detects a master pressure of the master cylinder or a connected portion of the master cylinder,

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the failure detector detects a small amount fluid leakage failure if the master in
the case that the pressure detected by the master cylinder pressure detector at the time when
the brake operation detected by the brake operating amount detector is the first predetermined
operation is larger than the first predetermined pressure, and a decreasing gradient of the
master pressure detected by the master cylinder pressure detector is larger than a
predetermined gradient,

the brake fluid control device includes a leak amount control device which
increases a supplying amount of a brake fluid to a brake, if the failure detector detects the
small amount fluid leakage failure, compared to the supplying amount of the brake fluid
when a large amount fluid leakage failure is detected.

8. (Twice Amended) The brake device as in claim 1, further comprising a brake
fluid control device which controls a brake fluid pressure in different ways based on the type
of the failure detected by the failure detector,

the fluid pressure source includes a master cylinder which has a pressure
chamber and generates the fluid pressure corresponding to an input power, a first
compressing device which compresses an operating fluid of the pressure chamber of the
master cylinder and supplies a compressed operating fluid to a brake, a second compressing
device which compresses the operating fluid stored in an atmospheric condition in a reservoir
tankchamber, the reservoir tankchamber is larger than the pressure chamber of the master
cylinder, and

the brake fluid control device includes a brake condition selection device
which selects either of a first condition in which the brake is compressed by the first
compressing device, or a second condition in which the brake is compressed by the second
compressing device based on the type of the failure detected by the failure detector.

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9. (Twice Amended) A brake device having a fluid pressure source which generates a fluid pressure based on operation of a brake operating member, the brake device actuated by the fluid pressure generated by the fluid pressure source, comprising:

a brake operating amount detector which detects an operating amount of the brake operating member,

a fluid source pressure detector which detects the fluid pressure generated in the fluid pressure source,

a failure detector which detects and distinguishes between different types of failures of the brake device based on the pressure detected by the fluid source pressure detector and the operating amount detected by the brake operating amount detector, and

a brake fluid control device which controls the brake fluid pressure in different ways based on the type of the failure detected by the failure detector, wherein the fluid pressure source includes a master cylinder which has a pressure chamber and generates the fluid pressure corresponding to an input power, a first compressing device which compresses an operating fluid of the pressure chamber of the master cylinder and supplies a compressed operating fluid to a brake, a second compressing device which compresses the operating fluid stored in an atmospheric condition in a reservoir ~~tank~~chamber, the reservoir ~~tank~~chamber is larger than the pressure chamber of the master cylinder, and

the brake fluid control device includes a brake condition selection device which selects either of a first condition in which the brake is compressed by the first compressing device, or a second condition in which the brake is compressed by the second compressing device based on the type of the failure detected by the failure detector.